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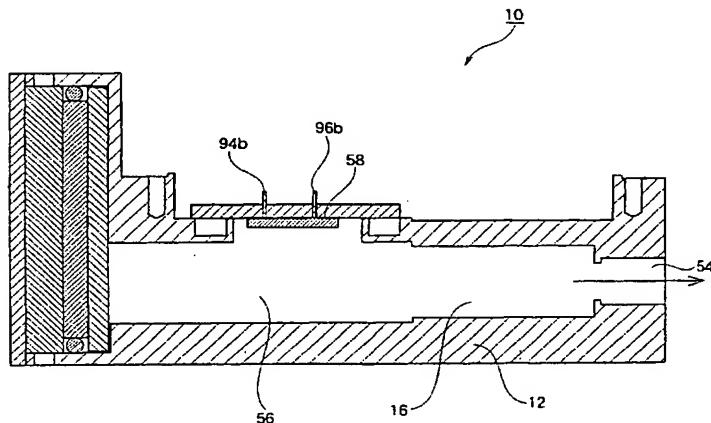
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(54) Title: ALCOHOL CONCENTRATION DETECTOR, METHOD OF DETECTING ALCOHOL CONCENTRATION THEREWITH AND PROCESS FOR PRODUCING ALCOHOL CONCENTRATION DETECTION SENSOR

(54)発明の名称: アルコール濃度検出装置およびそれを用いたアルコール濃度検出方法、ならびにアルコール濃度検出センサーの製造方法



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(57) Abstract: An alcohol concentration detector that is small and compact, can be disposed at arbitrary places, ensures design freedom, excels in inter-electrode insulation, is not affected by moisture, can be shielded so as to avoid influence of electromagnetic wave from an automobile or other frames and is capable of effecting precision measuring of alcohol concentration; a method of detecting alcohol concentrations therewith; and a process for producing an alcohol concentration detection sensor. In particular, an alcohol concentration detector comprising an alcohol concentration detection sensor having electrodes and adapted to, upon inserting a test liquid between the electrodes, measure a change of relative permittivity of the test liquid between the electrodes through transmission frequency to thereby detect the alcohol concentration of the test liquid, wherein the alcohol concentration detection sensor includes an alcohol concentration detection sensor body comprising a base resin film, an electrode wiring pattern formed on the base resin film and an insulating resin covering the electrode wiring pattern on its surface.

(57)要約: 小型でコンパクトであり、どこにでも設置できて設計の自由度があり、電極間の絶縁が良好で水分の影響がなく、自動車などの躯体からの電磁波の影響を受けないようにシールドでき、しかも、アルコール濃度の正確な測定を実施する可能なアルコール濃度検出装置およびそれを用いたアルコール濃度検出方法、ならびにアルコール濃度検出センサーの製造方法を提供する。アルコール濃度検出センサーの電極間に被検査

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ABSTRACT

It is an object to provide an alcohol concentration detecting apparatus which is small-sized and compact, can be installed everywhere and can have the degree of freedom of a 5 design, has an excellent insulation between electrodes and is not influenced by a moisture, can carry out shielding in order not to be influenced by an electromagnetic wave generated from a body of a car or the like, and furthermore, can execute an accurate measurement for an alcohol concentration.

10 Furthermore, it is an object to provide an alcohol concentration detecting method using the same apparatus, and an alcohol concentration detecting sensor manufacturing method.

In an alcohol concentration detecting apparatus in which an alcohol concentration in the liquid to be inspected is detected 15 by introducing a liquid to be inspected between electrodes of an alcohol concentration detecting sensor and by measuring a change in a specific inductive capacity of the liquid to be inspected between the electrodes with an oscillation frequency, the alcohol concentration detecting sensor comprises an alcohol 20 concentration detecting sensor body including a base material resin film, an electrode wiring pattern formed on the base material resin film, and an insulating resin covering a surface of the electrode wiring pattern.